METHOD AND SYSTEM FOR DYNAMICALLY CONTROLLING COOLING RESOURCES WITHIN A DATA CENTER

ABSTRACT

The present invention includes a method and system for dynamically controlling cooling resources in a data center based on the workload of the data center. Accordingly, based on the workload constraints (power consumed, latency, etc.) of the data center, each of a plurality of different types of cooling resources is activated in an optimal fashion. Consequently, a substantial savings in operational costs related to cooling resources is achieved. A first aspect of the present invention is a method for dynamically controlling cooling resources in a data center. The method comprises determining a workload within the data center, determining an amount of heat being generated as a function of the workload and activating each of a plurality of different types of cooling resources within the data center in an optimal fashion based on the amount of heat being generated.